

Worksheet
Determination of NEPA Adequacy (DNA)
U.S. Department of the Interior
Bureau of Land Management

FIELD OFFICE: Stillwater Field Office

NEPA NUMBER: DOI-BLM-NV-C0100-2011-0503-DNA

CASEFILE PROJECT NUMBER: NVN-86870 (geothermal lease)

PROPOSED ACTION TITLE/TYPE: geothermal drilling permit 46A-20 new observation well

LOCATION/LEGAL DESCRIPTION: T20N, R28E, section 20 S2W2 (within), Churchill County, well location 339691E, 4383010N, NAD83 Z11

APPLICANT (if any): Magma Energy US Corp

A. Description of the Proposed Action and any applicable mitigation measures

The proposed geothermal observation well is for observing the geothermal resource. The proposed geothermal observation well will not be flowed. Magma's 46A-20 will be drilled as a vertical geothermal exploration slim hole to a depth of 4000 feet. A truck-mounted rotary rig will be used on the 200 X 200 feet drilling pad. Approximately 1.2 miles of existing sandy road will be upgraded with 2 to 3 inches of gravel or crushed rock. The ground at the well pad will be leveled and covered with 2 to 3 inches of crushed rock or gravel while being constructed. A sump will be constructed within the pad area and is sized 80 X 20 X 6 feet. The temperature gradient well indicated that the fresh water zone is less than 500 feet and the well will be cased through this zone.

B. Land Use Plan (LUP) Conformance

LUP Name: Carson City Field Office Consolidated Resource Management Plan

Date Approved: May 9, 2001

**List applicable LUPs (for example, resource management plans; activity, project, management, or program plans; or applicable amendments thereto)*

The proposed action is in conformance with the applicable LUP because it is specifically provided for in the following LUP decisions:

Objective 1: Encourage development of energy and mineral resources in a timely manner to meet national, regional and local needs consistent with the objectives for other public land uses.

Objective 2: Oil, gas, and geothermal exploration and production upon BLM land are conducted through leases with the Bureau and are subject to terms and stipulations to comply with all

applicable federal and state laws pertaining to various considerations for sanitation, water quality, wildlife, safety, and reclamation. Stipulations may be site specific and are derived from the environmental analysis process.

C. Identify applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.

1) Magma Energy US Corp Soda Lake Geothermal Exploration Project DOI-BLM-NV-C010-2010-0008-EA; Date Approved: August 30, 2010

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes, the proposed action, geothermal exploration drilling of a new observation well, is the same as that analyzed in the environmental assessment, DOI-BLM-NV-C010-2010-0008-EA. This new well location for 46A-20 is adjacent to the area analyzed in this EA.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?

Yes, environmental concerns, interests, and resource values have not changed at all since the completion of the 2010 EA. The range of alternatives in the 2010 EA is still appropriate since the environmental constraints of geothermal drilling in this area have not changed.

3. Is the existing analysis valid in light of any new information or circumstances (such as, range- land health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

The anticipated impacts to the resources have not significantly changed since the 2010 EA was completed. The proposed action will not have any adverse effect on the human health or environment of minority and low income populations. The proposed action describes measures (conditions of approval, COAs) that will be taken which will limit and prevent any cumulative impacts.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes, the methodology and analytical approach used in the 2010 EA where the analyzed action is the same as the proposed action remains appropriate, as geothermal drilling and its potential impacts are minimized when standard operating procedures, conditions of approval, monitoring, and mitigation are followed as described in the current proposed action and the existing EA.

Yes, the 2010 EA analyzed cumulative impacts on relevant resources. The cumulative impacts to public lands resulting from geothermal leasing would remain unchanged from that analyzed in the 2010 EA. As disclosed in that EA, there would be no resource specific cumulative impacts, excepting cultural resources.

All future exploration and development proposals would be subject to separate NEPA review at which time cumulative impacts would be analyzed in detail. Any proposal for exploration or development may be modified or denied by the BLM in order to prevent irreparable and / or undue degradation or harm to one or more resources. The Contingency Rights Stipulation ensures that BLM maintains the authority needed to protect the resources.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Yes, public involvement associated with the 2010 EA remains adequate. Consultation with other agencies, the general public, and Native American Tribes was conducted for that document. The Fallon Paiute-Shoshone, the Reno-Sparks Indian Colony, and the Lovelock Paiute Tribes was consulted for the 2010 EA. The Fallon Paiute-Shoshone requested information regarding any future project and will be notified via letter of the proposed new drilling project and sites. Consultation will continue with tribal representatives on future geothermal projects in this area. In addition, geothermal exploration companies must apply to the county government for a special use permit for any drilling proposed in the county and the public is aware of these proposals via the local county process.

E. Persons/Agencies/BLM Staff Consulted

<u>Name</u>	<u>Title</u>	<u>Resource/Agency Represented</u>
Peter Neugenbauer	Realty	USBR
John Wilson	Wildlife, T&E Species	BLM
Jason Wright	Archeology	BLM

5-12-11
5/12/11

Note: Refer to the EA/EIS for a complete list of the team members participating in the preparation of the original environmental analysis or planning documents.

Conclusion

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of the NEPA.

Carla James, Supervisory Geologist 5-12-11

Signature of Project Lead

[Signature] 5/18/2011

Signature of NEPA Coordinator

Teresa J. Kuntz

Signature of Responsible Official

Date 05/18/2011

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.